

# Growth Effect of FSL

“Does FSL Spur Growth?” Geert Bekaert,  
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## Financial Sector Liberalization (FSL) Domestic Financial Liberalization (DFL) and Capital Account Liberalization (KAL)

FSL promises:

1. Improvement in global capital allocation
2. Enhance opportunities to savers and investors that will lead to an improved macroeconomic performance
3. Create more instruments, e.g., derivatives
4. Force government to bear a “healthy discipline” for macroeconomic stability.

### Domestic Financial Liberalization (DFL) and Capital Account Liberalization (KAL)

- **DFL:** Two important policies are: (1) lower the reserve requirement ( $rr$ ); and (2) raise competition in the banking sector. The idea is, *lowering  $rr$  will increase credits, and increased competition will raise efficiency*, hence better intermediaries and better credit allocation.
- **KAL:** liberalizing capital account *will let capital to flow more easily to be channeled through domestic intermediaries (either banks or firms), allowing more competition*. In either case, pressures for higher efficiency in domestic banks are introduced, including greater willingness to take forex risks. KAL can also detect policy inconsistencies.

Panel A: Annual Average Real GDP Growth Rate

Years	-10	-7	-5	-3	Country	3	5	7	10
-0.0054	-0.0104	-0.0102	0.0105	Argentina	-0.0100	0.0182	0.0143	*	
-0.0042	0.0139	0.0019	-0.0216	Brazil	0.0031	0.0160	0.0160	*	
0.0237	0.0507	0.0527	0.0541	Chile	0.0631	0.0663	*	*	
0.0126	0.0206	0.0245	0.0179	Colombia	0.0187	0.0261	0.0204	*	
0.0151	0.0082	0.0116	0.0207	Greece	0.0214	0.0157	0.0105	0.0131	
0.0301	0.0315	0.0323	0.0209	India	0.0420	0.0468	*	*	
-0.0185	-0.0294	0.0057	0.0498	Jordan	-0.0021	*	*	*	
*	*	0.0344	0.0357	Japan	0.0211	0.0265	0.0272	0.0336	
0.0783	0.0800	0.0813	0.0699	Korea	0.0535	0.0580	*	*	
0.0279	0.0176	0.0097	-0.0114	Malaysia	0.0583	0.0566	0.0574	0.0575	
0.0010	-0.0258	-0.0085	-0.0231	Mexico	0.0252	0.0187	0.0054	*	
0.0207	0.0169	0.0182	0.0102	New Zealand	-0.0025	-0.0097	0.0012	0.0052	
0.0152	0.0188	0.0051	-0.0143	Nigeria	0.0128	*	*	*	
0.0343	0.0315	0.0303	0.0294	Pakistan	0.0240	0.0221	0.0149	*	
-0.0092	-0.0156	0.0192	0.0249	Philippines	-0.0169	-0.0017	0.0076	*	
-0.0174	-0.0161	-0.0074	-0.0177	South Africa	-0.0152	-0.0045	*	*	
0.0412	0.0345	0.0352	0.0359	Thailand	0.0936	0.0869	0.0808	0.0757	
-0.0284	-0.0184	-0.0111	-0.0248	Venezuela	0.0459	0.0144	0.0087	*	
-0.0070	-0.0042	0.0011	-0.0186	Zimbabwe	0.0013	0.0131	*	*	
0.0407	0.0341	0.0369	0.0392	Indonesia	0.0685	0.0622	0.0614	*	
0.0197	0.0139	0.0039	-0.0010	Portugal	0.0597	0.0558	0.0472	0.0363	
0.0174	0.0302	0.0354	0.0393	Turkey	0.0118	0.0268	0.0157	*	
0.0125	0.0083	0.0051	0.0068	Spain	0.0315	0.0374	0.0346	0.0254	
0.0258	0.0229	0.0203	0.0296	Sri Lanka	0.0427	0.0390	*	*	
0.0142	0.0136	0.0178	0.0151	Average	0.0271	0.0334	0.0277	0.0432	
				# of increases	16 (of 24 valid)	16 (of 22)	11 (of 15)	4 (of 6)	

Panel B: Cross-Sectional Comparison  
Annual Average Real GDP Growth Rate

	k = 3	5	7	10
Full Liberalized	0.0234	0.0226	0.0213	0.0204
Never Liberalized	-0.0008	0.0014	0.0018	0.0032

The variable we explore in this table is the k-year average growth rate of real per capita gross domestic product. Official liberalization means that the equity market is liberalized. Full Liberalized denotes countries that are fully liberalized throughout our sample, whereas

**Table 2: Classic Growth Regression and the Impact of Liberalization**

Annual Average Real GDP Growth Rate (k=5)

**Panel A: Classic Growth Regression**

	Sample I	II	III	IV
Constant	-0.2369	-0.2581	-0.1559	-0.3438
<i>Std. error</i>	0.0181	0.0216	0.0295	0.0538
Log(GDP)	-0.0071	-0.0069	-0.0093	-0.0156
<i>Std. error</i>	0.0006	0.0006	0.0007	0.0011
Govt/GDP	-0.0044	-0.0175	-0.0212	-0.0158
<i>Std. error</i>	0.0085	0.0096	0.0105	0.0164
Enrollment	0.0277	0.0059	0.0162	0.0624
<i>Std. error</i>	0.0079	0.0098	0.0119	0.0174
Population Growth	-0.5978	-0.6037	-0.9389	-1.2056
<i>Std. error</i>	0.0577	0.0642	0.0791	0.1121
Log(Life Expectancy)	0.0746	0.0806	0.0624	0.1182
<i>Std. error</i>	0.0049	0.0057	0.0079	0.0140

**Panel B: Classic Growth Regression with Liberalization Indicator**

	Sample I	II	III	IV
Constant	-0.2281	-0.2374	-0.1493	-0.2018
<i>Std. error</i>	0.0179	0.0214	0.0286	0.0658
Log(GDP)	-0.0094	-0.0088	-0.0115	-0.0158
<i>Std. error</i>	0.0007	0.0007	0.0008	0.0011
Govt/GDP	-0.0039	-0.0178	-0.0187	-0.0301
<i>Std. error</i>	0.0087	0.0098	0.0105	0.0165
Enrollment	0.0305	0.0112	0.0243	0.0566
<i>Std. error</i>	0.0077	0.0097	0.0116	0.0171
Population Growth	-0.5594	-0.5731	-0.8159	-1.1013
<i>Std. error</i>	0.0621	0.0691	0.0835	0.1151
Log(Life Expectancy)	0.0755	0.0781	0.0627	0.0838
<i>Std. error</i>	0.0049	0.0056	0.0076	0.0167
Official Liberalization Indicator	0.0095	0.0083	0.0113	0.0120
<i>Std. error</i>	0.0016	0.0017	0.0020	0.0036

I, II, III, and IV refer to samples of 95, 75, 50 and 28 countries detailed in appendix table A1. The dependent variable is the 5-year average growth rate of real per capita gross domestic product. Log(GDP) is the log real per capita GDP level in 1980. Govt/GDP is the ratio of government consumption to GDP; Enrollment is the secondary school enrollment ratio; Population growth is the growth rate of total population; Log(Life Expectancy) is the log life expectancy of the total population; and the official liberalization variable takes a value of one when the equity market is liberalized, and zero otherwise. The weighting matrix we employ in our GMM estimation provides a correction for cross-sectional heteroskedasticity. All standard errors account for the overlapping nature of the data.

**Table 3: Robustness of the Liberalization Effect**

Annual Average Real GDP Growth Rate (k=5)

**Panel A: Sensitivity to Alternative Liberalization Dates**

	Sample I	II	III	IV
Constant	-0.2240	-0.2344	-0.1373	-0.2351
<i>Std. error</i>	0.0178	0.0213	0.0290	0.0653
Log(GDP)	-0.0093	-0.0088	-0.0105	-0.0150
<i>Std. error</i>	0.0006	0.0006	0.0007	0.0012
Govt/GDP	-0.0019	-0.0158	-0.0236	-0.0229
<i>Std. error</i>	0.0088	0.0099	0.0107	0.0165
Enrollment	0.0304	0.0108	0.0224	0.0572
<i>Std. error</i>	0.0078	0.0098	0.0116	0.0173
Population Growth	-0.5531	-0.5682	-0.7913	-1.1104
<i>Std. error</i>	0.0620	0.0686	0.0838	0.1183
Log(Life Expectancy)	0.0742	0.0772	0.0582	0.0900
<i>Std. error</i>	0.0048	0.0056	0.0077	0.0170
First Sign Liberalization Indicator	0.0102	0.0021	0.0105	0.0094
<i>Std. error</i>	0.0015	0.0016	0.0018	0.0033

**Panel B: Sensitivity to Regional Influences**

	Sample I	II	III	IV
Constant	-0.2268	-0.2347	-0.1571	-0.2095
<i>Std. error</i>	0.0180	0.0214	0.0288	0.0645
Log(GDP)	-0.0096	-0.0090	-0.0117	-0.0158
<i>Std. error</i>	0.0007	0.0007	0.0007	0.0012
Govt/GDP	-0.0049	-0.0197	-0.0236	-0.0318
<i>Std. error</i>	0.0088	0.0099	0.0106	0.0169
Enrollment	0.0305	0.0110	0.0225	0.0553
<i>Std. error</i>	0.0078	0.0098	0.0115	0.0171
Population Growth	-0.5454	-0.5569	-0.7493	-1.0934
<i>Std. error</i>	0.0631	0.0706	0.0857	0.1158
Log(Life Expectancy)	0.0754	0.0777	0.0649	0.0854
<i>Std. error</i>	0.0049	0.0057	0.0077	0.0164
Official Liberalization Indicator (Latin)	0.0089	0.0075	0.0068	0.0158
<i>Std. error</i>	0.0034	0.0034	0.0035	0.0071
Official Liberalization Indicator (Not-Latin)	0.0108	0.0099	0.0136	0.0133
<i>Std. error</i>	0.0016	0.0017	0.0019	0.0035

**Panel C: Sensitivity to Business Cycle:**

Lagged World Growth and Real Interest Rates

	Sample I	II	III	IV
Constant	-0.2334	-0.2453	-0.1684	-0.2437
<i>Std. error</i>	0.0185	0.0220	0.0304	0.0678
Log(GDP)	-0.0095	-0.0089	-0.0118	-0.0162
<i>Std. error</i>	0.0007	0.0007	0.0008	0.0011
Govt/GDP	-0.0053	-0.0188	-0.0211	-0.0293
<i>Std. error</i>	0.0088	0.0099	0.0107	0.0165
Enrollment	0.0322	0.0117	0.0244	0.0559
<i>Std. error</i>	0.0077	0.0098	0.0116	0.0169
Population Growth	-0.5503	-0.5553	-0.7864	-1.0202
<i>Std. error</i>	0.0627	0.0701	0.0853	0.1195
Log(Life Expectancy)	0.0762	0.0793	0.0656	0.0924
<i>Std. error</i>	0.0049	0.0057	0.0079	0.0170
OECD GDP growth (lagged)	0.0614	0.0349	0.0444	0.0424
<i>Std. error</i>	0.0317	0.0342	0.0334	0.0413
World real interest rate (lagged)	0.0337	0.0473	0.0834	0.1069
<i>Std. error</i>	0.0325	0.0352	0.0350	0.0434
Official Liberalization Indicator	0.0101	0.0089	0.0123	0.0133
<i>Std. error</i>	0.0016	0.0017	0.0020	0.0036

**Panel D: Sensitivity to Business Cycle:**

Contemporaneous World Growth and Real Interest Rates

	Sample I	II	III	IV
Constant	-0.2241	-0.2371	-0.1536	-0.2240
<i>Std. error</i>	0.0185	0.0220	0.0309	0.0670
Log(GDP)	-0.0093	-0.0087	-0.0115	-0.0160
<i>Std. error</i>	0.0007	0.0007	0.0008	0.0011
Govt/GDP	-0.0084	-0.0203	-0.0233	-0.0307
<i>Std. error</i>	0.0087	0.0098	0.0107	0.0165
Enrollment	0.0367	0.0174	0.0302	0.0634
<i>Std. error</i>	0.0076	0.0098	0.0115	0.0164
Population Growth	-0.5574	-0.5619	-0.7824	-1.0136
<i>Std. error</i>	0.0623	0.0699	0.0853	0.1240
Log(Life Expectancy)	0.0744	0.0778	0.0631	0.0883
<i>Std. error</i>	0.0050	0.0057	0.0081	0.0168
OECD GDP growth (contemporaneous)	0.1469	0.1177	0.1435	0.1695
<i>Std. error</i>	0.0301	0.0328	0.0315	0.0394
World real interest rate (contemporaneous)	-0.0625	-0.0484	-0.0132	-0.0182
<i>Std. error</i>	0.0282	0.0309	0.0300	0.0372
Official Liberalization Indicator	0.0097	0.0085	0.0124	0.0141
<i>Std. error</i>	0.0016	0.0017	0.0020	0.0036

**Table 5: Macroeconomic Reforms and Financial Liberalization**

Annual Average Real GDP Growth Rate (k=5)

**Panel A: Inflation**

	Sample I	II	III	IV
Constant	-0.2447	-0.2628	-0.1494	-0.1717
<i>Std. error</i>	0.0181	0.0216	0.0294	0.0631
Log(GDP)	-0.0094	-0.0088	-0.0120	-0.0167
<i>Std. error</i>	0.0007	0.0007	0.0008	0.0011
Govt/GDP	-0.0122	-0.0263	-0.0303	-0.0344
<i>Std. error</i>	0.0091	0.0103	0.0109	0.0134
Enrollment	0.0100	-0.0167	0.0057	0.0574
<i>Std. error</i>	0.0083	0.0103	0.0121	0.0169
Population Growth	-0.4966	-0.4954	-0.8100	-1.1441
<i>Std. error</i>	0.0589	0.0684	0.0842	0.1167
Log(Life Expectancy)	0.0789	0.0840	0.0638	0.0775
<i>Std. error</i>	0.0049	0.0057	0.0078	0.0159
Trade	0.0095	0.0108	0.0090	0.0084
<i>Std. error</i>	0.0011	0.0012	0.0012	0.0013
Inflation (Latin)	0.0001	0.0001	0.0005	0.0003
<i>Std. error</i>	0.0002	0.0002	0.0003	0.0004
Inflation (Non-Latin)	0.0030	0.0021	0.0042	-0.0492
<i>Std. error</i>	0.0022	0.0024	0.0039	0.0134
Official Liberalization Indicator	0.0102	0.0084	0.0112	0.0088
<i>Std. error</i>	0.0016	0.0017	0.0020	0.0034

**Panel B: Inflation High-Low Spread**

	I	II	III	IV
Constant	-0.2368	-0.2549	-0.1564	-0.3184
<i>Std. error</i>	0.0183	0.0218	0.0292	0.0708
Log(GDP)	-0.0095	-0.0089	-0.0120	-0.0170
<i>Std. error</i>	0.0007	0.0007	0.0008	0.0011
Govt/GDP	-0.0207	-0.0339	-0.0318	-0.0251
<i>Std. error</i>	0.0093	0.0104	0.0107	0.0169
Enrollment	0.0128	-0.0146	0.0066	0.0364
<i>Std. error</i>	0.0083	0.0104	0.0119	0.0171
Population Growth	-0.5210	-0.5098	-0.8138	-1.1565
<i>Std. error</i>	0.0595	0.0686	0.0839	0.1207
Log(Life Expectancy)	0.0775	0.0825	0.0656	0.1133
<i>Std. error</i>	0.0050	0.0057	0.0078	0.0180
Trade	0.0092	0.0105	0.0087	0.0089
<i>Std. error</i>	0.0011	0.0012	0.0012	0.0013
Inflation Spread (Latin)	0.0002	0.0002	0.0005	0.0006
<i>Std. error</i>	0.0001	0.0001	0.0002	0.0003
Inflation Spread (Non-Latin)	0.0050	0.0041	0.0081	0.0651
<i>Std. error</i>	0.0019	0.0020	0.0030	0.0207
Official Liberalization Indicator	0.0113	0.0094	0.0115	0.0074
<i>Std. error</i>	0.0016	0.0017	0.0019	0.0036

**Table 6: Financial Development versus Financial Liberalization**

Annual Average Real GDP Growth Rate (k=5)

**Panel A: Banking Sector Development**

	Sample I	II	III	IV
Constant	-0.2288	-0.2481	-0.1450	-0.3366
<i>Std. error</i>	0.0182	0.0216	0.0291	0.0708
Log(GDP)	-0.0104	-0.0099	-0.0133	-0.0186
<i>Std. error</i>	0.0007	0.0008	0.0008	0.0013
Govt/GDP	-0.0233	-0.0371	-0.0323	-0.0124
<i>Std. error</i>	0.0095	0.0108	0.0110	0.0188
Enrollment	0.0067	-0.0248	-0.0080	0.0226
<i>Std. error</i>	0.0086	0.0107	0.0126	0.0182
Population Growth	-0.5323	-0.5195	-0.8594	-1.2297
<i>Std. error</i>	0.0587	0.0684	0.0848	0.1290
Log(Life Expectancy)	0.0768	0.0825	0.0651	0.1203
<i>Std. error</i>	0.0050	0.0058	0.0077	0.0180
Trade	0.0092	0.0107	0.0096	0.0102
<i>Std. error</i>	0.0011	0.0011	0.0012	0.0014
Inflation Spread (Latin)	0.0002	0.0002	0.0006	0.0008
<i>Std. error</i>	0.0001	0.0001	0.0002	0.0003
Inflation Spread (Non-Latin)	0.0053	0.0042	0.0087	0.0736
<i>Std. error</i>	0.0019	0.0020	0.0031	0.0215
Private Credit	0.0086	0.0100	0.0087	0.0066
<i>Std. error</i>	0.0020	0.0021	0.0022	0.0026
Official Liberalization Indicator	0.0098	0.0076	0.0104	0.0061
<i>Std. error</i>	0.0016	0.0017	0.0019	0.0036

**Panel B: Banking Sector and Equity Market Development**

	Sample III	IV
Constant	-0.1373	-0.3304
<i>Std. error</i>	0.0309	

**Panel A: Effects of Financial Liberalization on Financial Development**

Sample III: 50 countries			
Dependent Variable: Average Turnover	k=1	2	3
Constant	-1.3634	-1.4573	-1.5860
Std. error	0.2319	0.2121	0.1982
Log(GDP)	0.0211	0.0200	0.0161
Std. error	0.0062	0.0058	0.0057
Govt/GDP	-0.3103	-0.3185	-0.3387
Std. error	0.1012	0.0909	0.0843
Enrollment	0.1094	0.1109	0.0808
Std. error	0.0903	0.0819	0.0805
Population Growth	0.9376	1.1719	1.3368
Std. error	0.7442	0.6752	0.6314
Log(Life Expectancy)	0.3183	0.3431	0.3839
Std. error	0.0606	0.0558	0.0530
Official Liberalization Indicator	0.1611	0.1605	0.1660
Std. error	0.0157	0.0147	0.0144

Sample I: 95 countries			
Dependent Variable: Average Private Credit/GDP	k=1	2	3
Constant	-0.9338	-0.8889	-0.8891
Std. error	0.0699	0.0718	0.0721
Log(GDP)	0.0850	0.0878	0.0870
Std. error	0.0041	0.0041	0.0042
Govt/GDP	0.2554	0.2068	0.1757
Std. error	0.0478	0.0465	0.0454
Enrollment	0.5231	0.5822	0.5971
Std. error	0.0445	0.0452	0.0457
Population Growth	-0.1110	0.0049	0.0848
Std. error	0.1996	0.2000	0.2002
Log(Life Expectancy)	0.1196	0.1025	0.1039
Std. error	0.0223	0.0229	0.0231
Official Liberalization Indicator	0.2223	0.2226	0.2285
Std. error	0.0091	0.0093	0.0095

Sample III: 50 countries			
Dependent Variable: Average Log(# of stocks)	k=1	2	3
Constant	-1.2640	-1.1084	-0.9963
Std. error	1.0370	1.0100	0.9699
Log(GDP)	0.0058	0.0048	0.0017
Std. error	0.0261	0.0260	0.0259
Govt/GDP	-1.2926	-1.3743	-1.4821
Std. error	0.3406	0.3320	0.3160
Enrollment	0.1441	0.0992	-0.0221
Std. error	0.3707	0.3682	0.3592
Population Growth	-3.5210	-4.0686	-4.2086
Std. error	2.5320	2.4068	2.1532
Log(Life Expectancy)	1.5207	1.4988	1.4925
Std. error	0.2681	0.2609	0.2515
Official Liberalization Indicator	0.4675	0.4566	0.4681
Std. error	0.0585	0.0589	0.0599

Sample III: 50 countries			
Dependent Variable: Average Private Credit/GDP	k=1	2	3
Constant	-0.7842	-0.7317	-0.7002
Std. error	0.2572	0.2517	0.2475
Log(GDP)	0.1303	0.1300	0.1291
Std. error	0.0066	0.0066	0.0066
Govt/GDP	0.2000	0.1869	0.1703
Std. error	0.1127	0.1096	0.1062
Enrollment	1.2484	1.2502	1.2307
Std. error	0.0916	0.0902	0.0904
Population Growth	2.4165	2.5392	2.6223
Std. error	0.7425	0.7276	0.7205
Log(Life Expectancy)	-0.0262	-0.0386	-0.0438
Std. error	0.0665	0.0651	0.0640
Official Liberalization Indicator	0.1144	0.1277	0.1290
Std. error	0.0139	0.0142	0.0146

**Panel B: Effects of Financial Development on Probability of Financial Liberalization**

Dependent Variable: 1996 Official Liberalization Indicator  
 Independent Variables are average of previous 5 years  
 50 countries

Dependent Variable: 1996 Official Liberalization Indicator

Constant	-11.773
Std. error	16.468
Log(GDP)	0.669
Std. error	1.484
Govt/GDP	14.476
Std. error	23.590
Private Credit	-2.561
Std. error	6.957
Turnover	7.376
Std. error	11.816
Log(# of dom companies)	0.939
Std. error	0.862

Dependent Variable: 1993 Official Liberalization Indicator

Constant	-6.044
Std. error	4.260
Log(GDP)	0.720
Std. error	0.654
Govt/GDP	-11.585
Std. error	4.929
Private Credit	0.438
Std. error	3.111
Turnover	0.175
Std. error	1.848
Log(# of dom companies)	0.537
Std. error	0.300

Dependent Variable: 1990 Official Lib Indicator

Constant	-6.908
Std. error	2.507
Log(GDP)	1.370
Std. error	0.741
Govt/GDP	-14.068
Std. error	12.733
Private Credit	1.264
Std. error	1.829
Turnover	0.258
Std. error	1.291
Log(# of dom companies)	-0.360
Std. error	0.451

Dependent Variable: 1987 Official Lib Indicator

Constant	-11.137
Std. error	3.909
Log(GDP)	1.405
Std. error	0.515
Govt/GDP	-4.910
Std. error	7.734
Private Credit	1.774
Std. error	3.091
Turnover	-0.335
Std. error	2.327
Log(# of dom companies)	-0.145
Std. error	0.429

I and III refers to samples of 95 and 50 countries detailed in appendix table A1. In Panel A, the dependent variable is the 1, 2, or 3-year average of either equity markets turnover, log number of companies, or private credit to GDP ratio. The weighting matrix we employ in our GMM estimation provides a correction for cross-sectional heteroskedasticity. All standard errors are robust, accounting for the overlapping nature of the data. In Panel B, the dependent variable is the official liberalization indicator. A cross-sectional Probit model is estimated for 1987, 1990, 1993, 1996 using Cross-Sectional Maximum Likelihood (CSML) estimation, with GMM to correct standard errors. In this case, each right hand side variable is the estimated 5 year average of the

**Table 8: The Sources of the Liberalization Effect**  
 Liberalization and the Components of GDP

Panel A: Annual Average Investment/GDP Ratio (k=5)

	Sample I	II	III	IV
Constant	-0.3370	-0.3165	-0.4205	0.1725
Std. error	0.0287	0.0326	0.0632	0.1188
Log(GDP)	-0.0157	-0.0130	-0.0148	-0.0109
Std. error	0.0011	0.0010	0.0015	0.0020
Govt/GDP	-0.0147	-0.0285	0.0023	-0.1097
Std. error	0.0149	0.0152	0.0207	0.0315
Enrollment	0.7288	0.6498	0.7024	0.7951
Std. error	0.0156	0.0187	0.0232	0.0303
Population Growth	0.2270	0.2899	0.0554	-0.8799
Std. error	0.0796	0.0759	0.1637	0.2153
Log(Life Expectancy)	0.1230	0.1175	0.1428	-0.0029
Std. error	0.0083	0.0092	0.0166	0.0302
Official Liberalization Indicator	0.0141	0.0116	0.0079	0.0127
Std. error	0.0025	0.0026	0.0034	0.0053

Panel C: Annual Average Government/GDP Ratio (k=5)

	Sample I	II	III	IV
Constant	0.0275	0.0123	0.0911	0.2702
Std. error	0.0109	0.0130	0.0204	0.0292
Log(GDP)	0.0069	0.0055	0.0014	0.0040
Std. error	0.0006	0.0007	0.0004	0.0005
Govt/GDP	0.8426	0.8756	0.9187	0.9701
Std. error	0.0113	0.0111	0.0072	0.0099
Enrollment	0.0377	0.0258	0.0169	0.0330
Std. error	0.0046	0.0052	0.0076	0.0100
Population Growth	0.2806	0.2772	-0.0861	0.1707
Std. error	0.0853	0.1075	0.0309	0.0558
Log(Life Expectancy)	-0.0168	-0.0117	-0.0228	-0.0733
Std. error	0.0025	0.0032	0.0054	0.0074
Official Liberalization Indicator	-0.0027	0.0006	0.0053	0.0041
Std. error	0.0006	0.0009	0.0013	0.0019

Panel B: Annual Average Consumption/GDP Ratio (k=5)

	Sample I	II	III	IV
Constant	1.7627	0.9759	0.5343	0.6856
Std. error	0.0429	0.0642	0.0811	0.1171
Log(GDP)	-0.0418	-0.0270	-0.0206	-0.0093
Std. error	0.0017	0.0020	0.0021	0.0017
Govt/GDP	-0.4817	-0.4814	-0.4089	-0.8128
Std. error	0.0269	0.0292	0.0259	0.0283
Enrollment	-0.2665	-0.5038	-0.4503	-0.7622
Std. error	0.0227	0.0266	0.0276	0.0376
Population Growth	-2.5579	-1.8045	0.4181	0.0178
Std. error	0.1410	0.1917	0.1986	0.2088
Log(Life Expectancy)	-0.1442	0.0247	0.1006	0.0692
Std. error	0.0118	0.0168	0.0208	0.0292
Official Liberalization Indicator	0.0082	-0.0246	-0.0085	0.0123
Std. error	0.0043	0.0046	0.0049	0.0071

Panel D: Annual Average (Export-Imports)/GDP Ratio (k=5)

	Sample I	II	III	IV
Constant	-0.1833	0.4063	1.0657	0.1080
Std. error	0.0192	0.0350	0.0652	0.0565
Log(GDP)	0.0433	0.0326	0.0354	0.0196
Std. error	0.0007	0.0008	0.0009	0.0008
Govt/GDP	-0.2353	-0.1624	-0.3058	-0.0580
Std. error	0.0074	0.0173	0.0261	0.0119
Enrollment	-0.3607	0.0080	-0.1525	-0.0222
Std. error	0.0102	0.0104	0.0179	0.0146
Population Growth	0.4565	-0.0973	-0.0199	0.6206
Std. error	0.1452	0.0991	0.1428	0.1112
Log(Life Expectancy)	-0.0179	-0.1557	-0.3016	-0.0582
Std. error	0.0045	0.0090	0.0157	0.0152
Official Liberalization Indicator	-0.0211	-0.0107	-0.0061	-0.0231
Std. error	0.0017	0.0013	0.0029	0.0024

**Table 9: The Cost of Capital and the Liberalization Effect**

Panel A: Growth, Liberalization and the Cost of Capital (Credit Rating)

	Sample II	III	IV
Constant	-0.2877	-0.1304	-0.2026
Std. error	0.0145	0.0247	0.0671
Log(GDP)	-0.0104	-0.0121	-0.0160
Std. error	0.0005	0.0005	0.0011
Govt/GDP	-0.0263	-0.0271	-0.0304
Std. error	0.0082	0.0083	0.0120
Enrollment	-0.0306	0.0173	0.0547
Std. error	0.0067	0.0093	0.0163
Population Growth	-0.4485	-0.3004	-1.0901
Std. error	0.1027	0.1013	0.0860
Log(Life Expectancy)	0.0871	0.0551	0.0831
Std. error	0.0035	0.0066	0.0174
Official Liberalization Indicator	0.0010	0.0105	0.0127
Std. error	0.0013	0.0017	0.0047
Log(Credit Rating)	0.0102	0.0054	0.0014
Std. error	0.0010	0.0013	0.0032

Panel B: Growth, Liberalization and the Cost of Capital (Dividend Yield)

	Sample IV
Constant	-0.2025
Std. error	0.0671
Log(GDP)	-0.0159
Std. error	0.0010
Govt/GDP	-0.0355
Std. error	0.0122
Enrollment	0.0469
Std. error	0.0181
Population Growth	-1.1259
Std. error	0.0884
Log(Life Expectancy)	0.0842
Std. error	0.0175
Official Liberalization Indicator	0.0163
Std. error	0.0049
Dividend Yield	0.0376
Std. error	0.0412
Div Yield*Lib Indicator	-0.0682
Std. error	0.0440

Panel C: Investment, Liberalization and the Cost of Capital (Credit Rating)

	Sample II	III	IV
Constant	-0.3678	-0.4247	0.2109
Std. error	0.0264	0.0571	0.1139
Log(GDP)	-0.0142	-0.0157	-0.0123
Std. error	0.0008	0.0013	0.0024
Govt/GDP	-0.0305	0.0035	-0.1002
Std. error	0.0109	0.0177	0.0316
Enrollment	0.6134	0.6876	0.8051
Std. error	0.0203	0.0259	0.0336
Population Growth	0.2600	0.1188	-0.8640
Std. error	0.0406	0.1831	0.1715
Log(Life Expectancy)	0.1342	0.1374	-0.0193
Std. error	0.0079	0.0134	0.0291
Official Liberalization Indicator	0.0098	0.0051	0.0132
Std. error	0.0020	0.0032	0.0066
Log(Credit Rating)	0.0003	0.0097	0.0095
Std. error	0.0014	0.0024	0.0069

Panel D: Investment, Liberalization and the Cost of Capital

**Table 10: Insider Trading and the Liberalization Effect**  
Annual Average Real GDP Growth Rate (k=5)

**Panel A: Liberalization and Insider Trading Law**

	Sample I	II	III	IV
Constant	-0.2340	-0.2465	-0.1616	-0.2138
Std. error	0.0190	0.0237	0.0238	0.0689
Log(GDP)	-0.0093	-0.0086	-0.0114	-0.0157
Std. error	0.0005	0.0006	0.0006	0.0010
Govt/GDP	-0.0009	-0.0149	-0.0191	-0.0306
Std. error	0.0074	0.0095	0.0080	0.0128
Enrollment	0.0301	0.0104	0.0241	0.0584
Std. error	0.0061	0.0080	0.0102	0.0183
Population Growth	-0.5312	-0.5340	-0.7517	-1.0438
Std. error	0.1329	0.1593	0.1036	0.0949
Log(Life Expectancy)	0.0765	0.0796	0.0654	0.0861
Std. error	0.0043	0.0053	0.0061	0.0181
Official Liberalization Indicator	0.0093	0.0079	0.0117	0.0129
Std. error	0.0016	0.0019	0.0018	0.0046
Insider Trading Law	0.0001	0.0004	-0.0005	-0.0004
Std. error	0.0006	0.0006	0.0008	0.0009

**Panel B: Liberalization and Insider Trading Prosecution**

	Sample I	II	III	IV
Constant	-0.2319	-0.2413	-0.1584	-0.1971
Std. error	0.0181	0.0228	0.0226	0.0680
Log(GDP)	-0.0096	-0.0090	-0.0119	-0.0158
Std. error	0.0005	0.0006	0.0005	0.0010
Govt/GDP	-0.0011	-0.0143	-0.0178	-0.0314
Std. error	0.0075	0.0100	0.0079	0.0124
Enrollment	0.0315	0.0135	0.0292	0.0564
Std. error	0.0058	0.0077	0.0095	0.0164
Population Growth	-0.5544	-0.5710	-0.8047	-1.0766
Std. error	0.1378	0.1722	0.1011	0.0864
Log(Life Expectancy)	0.0765	0.0791	0.0653	0.0824
Std. error	0.0040	0.0049	0.0057	0.0179
Official Liberalization Indicator	0.0092	0.0080	0.0116	0.0138
Std. error	0.0016	0.0019	0.0017	0.0044
Insider Trading Prosecution	0.0036	0.0031	0.0037	0.0015
Std. error	0.0008	0.0009	0.0010	0.0012

I, II, III, and IV refer to samples of 95, 75, 50 and 28 countries detailed in appendix table A1. The dependent variable is the 5-year average growth rate of real per capita gross domestic product. Log(GDP) is the log real per capita GDP level in 1980. Govt/GDP is the ratio of government consumption to GDP; Enrollment is the secondary school enrollment rate; Population growth is the growth rate of total population; Log(Life Expectancy) is the log life expectancy of the total population; Insider Trading Law and Insider Trading Prosecution are indicators representing either the introduction of laws prohibiting insider trading or actual prosecutions, respectively; and the official liberalization variable takes a value of one when the equity market is liberalized, and zero otherwise. The weighting matrix we employ in our GMM estimation provides a correction for cross-sectional heteroskedasticity. All standard errors account for the overlapping nature of the data.

**Table 11: Financial Liberalization and Preconditions**  
Annual Average Real GDP Growth Rate (k=5)

**Panel A: Financial Liberalization and Education**

	Sample I	II	III	IV
Constant	-0.2453	-0.2619	-0.1624	-0.3074
Std. error	0.0181	0.0216	0.0296	0.0617
Log(GDP)	-0.0094	-0.0087	-0.0111	-0.0161
Std. error	0.0007	0.0007	0.0008	0.0012
Govt/GDP	0.0051	-0.0064	-0.0170	-0.0214
Std. error	0.0088	0.0098	0.0108	0.0179
Enrollment	0.0216	-0.0029	-0.0029	0.0410
Std. error	0.0081	0.0102	0.0121	0.0181
Population Growth	-0.5288	-0.5281	-0.8576	-1.1904
Std. error	0.0607	0.0673	0.0792	0.1129
Log(Life Expectancy)	0.0798	0.0840	0.0622	0.1115
Std. error	0.0050	0.0057	0.0060	0.0157
Official Liberalization Indicator*Fully Liberalized	0.0085	0.0066	0.0081	0.0037
Std. error	0.0017	0.0018	0.0017	0.0022
Official Liberalization Indicator*High Enrollment	0.0165	0.0157	0.0159	0.0103
Std. error	0.0029	0.0030	0.0028	0.0043
Official Liberalization Indicator*Low Enrollment	-0.0019	-0.0030	-0.0034	-0.0061
Std. error	0.0021	0.0022	0.0024	0.0026
Wald Test: High Enrollment - Low Enrollment	97.475	93.284	66.317	14.643
p-value	0.000	0.000	0.000	0.000

**Panel C: Financial Liberalization and Democracy**

	Sample I	II	III	IV
Constant	-0.2327	-0.2445	-0.1623	-0.2639
Std. error	0.0179	0.0214	0.0283	0.0606
Log(GDP)	-0.0091	-0.0084	-0.0116	-0.0162
Std. error	0.0007	0.0007	0.0008	0.0012
Govt/GDP	-0.0058	-0.0193	-0.0191	-0.0267
Std. error	0.0087	0.0097	0.0105	0.0165
Enrollment	0.0305	0.0108	0.0250	0.0621
Std. error	0.0078	0.0098	0.0118	0.0173
Population Growth	-0.5818	-0.5941	-0.8692	-1.1447
Std. error	0.0614	0.0681	0.0825	0.1146
Log(Life Expectancy)	0.0765	0.0795	0.0666	0.0996
Std. error	0.0049	0.0057	0.0076	0.0154
Official Liberalization Indicator*Democracy	0.0079	0.0063	0.0099	0.0087
Std. error	0.0017	0.0018	0.0020	0.0033

**Panel B: Financial Liberalization and Government Size**

	Sample I	II	III	IV
Constant	-0.2312	-0.2454	-0.1505	-0.3059
Std. error	0.0160	0.0215	0.0295	0.0618
Log(GDP)	-0.0089	-0.0081	-0.0108	-0.0163
Std. error	0.0007	0.0007	0.0008	0.0012
Govt/GDP	-0.0012	-0.0134	-0.0202	-0.0261
Std. error	0.0088	0.0100	0.0109	0.0182
Enrollment	0.0284	0.0087	0.0173	0.0584
Std. error	0.0078	0.0099	0.0118	0.0178
Population Growth	-0.5696	-0.5821	-0.9180	-1.2250
Std. error	0.0624	0.0697	0.0819	0.1141
Log(Life Expectancy)	0.0755	0.0790	0.0631	0.1111
Std. error	0.0049	0.0057	0.0079	0.0158
Official Liberalization Indicator*Fully Liberalized	0.0072	0.0053	0.0072	0.0038
Std. error	0.0017	0.0019	0.0018	0.0023
Official Liberalization Indicator*Big Government	0.0039	0.0028	0.0017	0.0027
Std. error	0.0024	0.0026	0.0024	0.0036
Official Liberalization Indicator*Small Government	0.0103	0.0090	0.0086	0.0049
Std. error	0.0028	0.0026	0.0027	0.0045
Wald Test: Big Government - Small Government	5.397	3.892	4.308	4.796
p-value	0.020	0.049	0.038	0.029

**Panel D: Financial Liberalization and Legal Origin**

	Sample I	II	III	IV
Constant	-0.2320	-0.2475	-0.1638	-0.2960
Std. error	0.0206	0.0261	0.0249	0.0696
Log(GDP)	-0.0089	-0.0081	-0.0107	-0.0148
Std. error	0.0005	0.0006	0.0006	0.0009
Govt/GDP	-0.0095	-0.0269	-0.0296	-0.0525
Std. error	0.0080	0.0109	0.0080	0.0152
Enrollment	0.0280	0.0037	0.0131	0.0542
Std. error	0.0061	0.0087	0.0105	0.0223
Population Growth	-0.5742	-0.5793	-0.8941	-1.3499
Std. error	0.1528	0.1897	0.1183	0.1016
Log(Life Expectancy)	0.0761	0.0803	0.0666	0.1087
Std. error	0.0045	0.0057	0.0062	0.0180
Official Liberalization Indicator*French Law	0.0050	0.0031	0.0029	-0.0057
Std. error	0.0018	0.0021	0.0020	0.0052
Official Liberalization Indicator*English Law	0.0091	0.0077	0.0098	0.0046
Std. error	0.0015	0.0018	0.0018	0.0048
Official Liberalization Indicator*Law (Other)	0.0081	0.0072	0.0079	0.0000
Std. error	0.0022	0.0028	0.0027	0.0052
Wald Test: French Law - English Law - Law (Other)	28.356	37.564	36.985	29.073
p-value	0.000	0.000	0.000	0.000

## Findings

- 70% of FSL effect on growth takes place in the 5 years following FSL, and the effect is not permanent
- FSL is associated with 0.83% to 1.13% of real per-capita GDP growth, although FSL also tends to lead to a widening current account deficit
- When using insider-trading prosecution (enforcement), the results are significant and positive, and the FSL coefficient survives.
- Foreign ownership is important to raise FSL benefit
- FSL is not spuriously accounted for by macroeconomic reforms and does not reflect a business cycle effect.
- Although FSL further fin development, measures of fin development fail to fully drive out the FSL effect
- A large secondary SER, a small government sector, and Anglo saxon legal system enhance FSL effect

**Annual Average Real GDP Growth Rate (k=5)**

**Panel E: Financial Liberalization and U.S. Holdings/GDP**

	Sample I	II	III	IV
Constant	-0.2333	-0.2543	-0.1583	-0.3505
Std. error	0.0181	0.0218	0.0298	0.0582
Log(GDP)	-0.0075	-0.0071	-0.0097	-0.0157
Std. error	0.0006	0.0006	0.0008	0.0012
Govt/GDP	-0.0047	-0.0182	-0.0196	-0.0142
Std. error	0.0088	0.0099	0.0110	0.0177
Enrollment	0.0297	0.0077	0.0215	0.0663
Std. error	0.0079	0.0099	0.0121	0.0187
Population Growth	-0.6007	-0.6661	-0.9259	-1.1828
Std. error	0.0587	0.0650	0.0815	0.1196
Log(Life Expectancy)	0.0742	0.0799	0.0633	0.1197
Std. error	0.0049	0.0057	0.0080	0.0151
Official Liberalization Indicator*(U.S. Holdings/GDP)	0.0118	0.0051	0.0103	0.0021
Std. error	0.0075	0.0074	0.0073	0.0065

**Panel F: Financial Liberalization and U.S. Holdings/MCAP**

	Sample I	II	III	IV
Constant	-0.2320	-0.2487	-0.1487	-0.3031
Std. error	0.0180	0.0216	0.0295	0.0578
Log(GDP)	-0.0082	-0.0077	-0.0099	-0.0152
Std. error	0.0006	0.0006	0.0007	0.0011
Govt/GDP	-0.0037	-0.0184	-0.0192	-0.0140
Std. error	0.0088	0.0099	0.0108	0.0166
Enrollment	0.0283	0.0064	0.0195	0.0667
Std. error	0.0078	0.0098	0.0119	0.0180
Population Growth	-0.5741	-0.5780	-0.8795	-1.1750
Std. error	0.0600	0.0664	0.0825	0.1148
Log(Life Expectancy)	0.0747	0.0795	0.0669	0.1071
Std. error	0.0049	0.0057	0.0079	0.0151
Official Liberalization Indicator*(U.S. Holdings/MCAP)	0.0352	0.0325	0.0291	0.0173
Std. error	0.0067	0.0067	0.0067	0.0073

**Panel G: Financial Liberalization and Equity Market Correlation**

	Sample IV
Constant	-0.3418
Std. error	0.0549
Log(GDP)	-0.0155
Std. error	0.0011
Govt/GDP	-0.0168
Std. error	0.0174
Enrollment	0.0612
Std. error	0.0185
Population Growth	-1.1952
Std. error	0.1241
Log(Life Expectancy)	0.1177
Std. error	0.0142
Official Liberalization Indicator*(market correlation with world)	0.0010
Std. error	0.0051

I, II, III, and IV refer to samples of 95, 75, 50 and 28 countries detailed in appendix table A1. The dependent variable is the 5-year average growth rate of real per capita gross domestic product. Log(GDP) is the

## In Short.....

- On average, FSL led to a **1%** increase in annual GDP growth rate
- FSL **raises I/Y** through **foreign capital** inflows, and hence **widens DCA**
- FSL does not reflect a business cycle effect
- Effects of FSL are intensified after controlling for SER, size of government, and legal system

## Determinants of Capital Flows

Table 1. Definition of Variables

	Definition	Expected Sign
<i>External Variables</i>		
<i>REXT</i>	Real ex-post international interest rate: US dollar 3-months Libor minus the US-CPI 3-months inflation	-
<i>NPKF</i>	Net private capital flows available to all developing countries, minus the flows received by country <i>j</i> , as a share of GDP of the major industrial countries	+
<i>PIB_IND</i>	Economic activity (GDP) in industrial countries	-
<i>Domestic Variables</i>		
<i>GPIB</i>	Real GDP growth	+
<i>PSB</i>	Public sector (central government) balance as a share of GDP	+
<i>INV</i>	Gross domestic investment as a share of GDP	+
<i>TRADE</i>	Total exports as a share of GDP	+
<i>DEBTSS</i>	Foreign debt service as a share of GDP	-
<i>CRPR</i>	Growth in banking sector nominal credit to the private sector	-
<i>APPR</i>	Real exchange rate appreciation (in percent) during the past year: $[RER_t - RER_{t-1}] / RER_{t-1}$	-

Table 2. Determinants of Capital Inflows  
Sample 1: 1977–84

	m&lt; debt	fdi	portfolio	tot. flows
<i>lgpib</i>	n/a	0.021		--
<i>lpsb</i>	-0.139	-0.024		--
<i>linv</i>	0.129	n/a		0.176
<i>ldebtss</i>	-0.369	-0.026		-0.355
<i>lcrpr</i>	--	--		n/a
<i>lappr</i>	-0.027	-0.004		-0.017
<i>rext</i>	n/a	n/a		n/a
<i>npkf</i>	1.336	0.644		1.234*
<b>N</b>	111	111		111
<b>R-sq</b>	0.358	0.230		0.349
<b>F test</b>	6.890	4.670		6.730
<b>Prob&gt;F</b>	0.000	0.000		0.000

**Table 4. Determinants of Capital Inflows**  
Sample 3: 1987–96

	m&lt; debt	fdi	Portfolio	tot. flows
lgpib	n/a	0.039	n/a	n/a
lpsb	0.116	-0.044	n/a	n/a
linv	0.207	--	0.074	0.184
ldebtss	-0.221	n/a	--	-0.122
lcrpr	--	-0.004	-0.002	-0.004
lappr	--	--	--	--
rext	--	--	--	-0.337
npkf	2.094	1.471	1.334	--
dummy	n/a	1.286	n/a	2.983
N	236	236	236	236
R-sq	0.202	0.371	0.167	0.442
F test	6.750	13.260	6.470	20.750
Prob>F	0.000	0.000	0.000	0.000

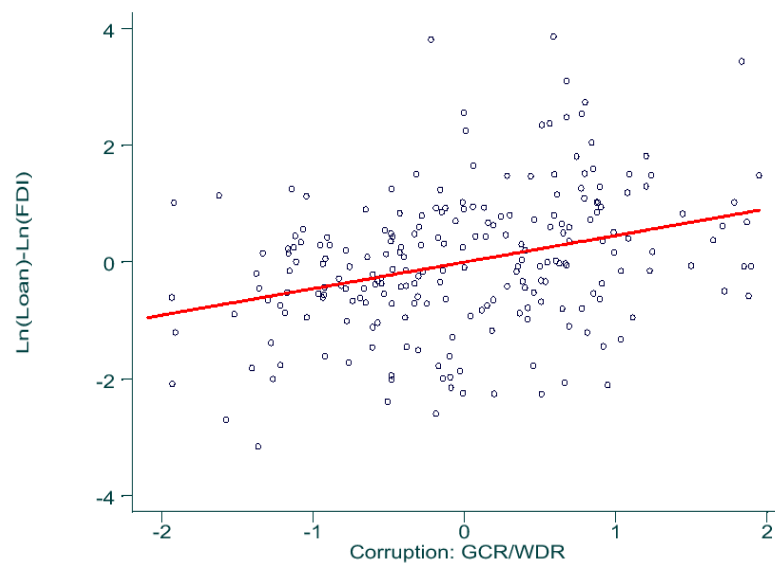
**Table 7: Composition of Capital Flows**

Dependent variable:  $\log(\text{Loan}) - \log(\text{FDI})$ , averaged over 1994-96

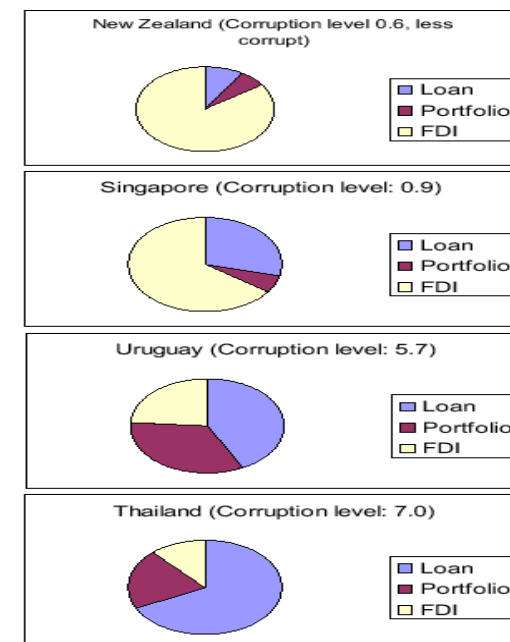
Methodology	Fixed Effects	Random Effects	Fixed Effects	Random Effects	IV Fixed effects	
	GCR/ WDR	GCR/ WDR	T 1	T 1	GCR/ WDR	WDR
Corruption	0.662** (0.128)	0.680** (0.225)	0.707** (0.176)	0.720** (0.290)	0.296# (0.181)	0.285# (0.182)
Tax rate	0.021 (0.017)	0.021 (0.031)	0.021 (0.018)	0.020 (0.029)		
FDI incentives	0.194 (0.152)	0.244 (0.260)	-0.056 (0.160)	-0.019 (0.254)	0.111 (0.156)	0.095 (0.157)
FDI restrictions	0.440** (0.086)	0.446** (0.157)	0.458** (0.088)	0.446** (0.145)	0.336** (0.093)	0.333** (0.093)
Log (GDP)	-0.569** (0.107)	-0.651** (0.186)	-0.597** (0.110)	-0.655** (0.174)	-0.274** (0.115)	-0.254** (0.118)
Log (Per capita GDP)	0.172* (0.098)	0.205 (0.181)	0.272** (0.125)	0.302 (0.210)	0.034 (0.103)	0.033 (0.103)
Log distance	0.350** (0.094)	0.543** (0.114)	0.357** (0.096)	0.525** (0.114)	0.123 (0.132)	0.111 (0.132)
Linguistic tie	-0.699** (0.305)	-0.680** (0.287)	-0.722** (0.313)	-0.700** (0.292)	-0.753** (0.289)	-0.803** (0.296)
Exchange rate volatility	-0.661 (2.060)	-0.007 (3.505)	-1.351 (2.216)	-0.755 (3.488)		-1.793 (2.226)
Over-identifying restriction (P-value of the test)					0.43	0.40
Adjusted R <sup>2</sup> /Over-all R <sup>2</sup>	0.49	0.52	0.46	0.50	-	-
No. of obs.	225	225	225	225	180	180

Note: see notes to Table 5.

**Figure 3: Composition of Capital Inflows and Corruption**  
(Partial correlation based on Table 7, Column 1)



**Figure 2: Quality of Public Governance and the Composition of Capital Inflows**



**Table 1a: Volatility of FDI/GDP, Bank Loan/GDP, and Portfolio Flow/GDP as Measured by Standard Deviation: 1980-1996**

	FDI/GDP	Loan/GDP	Portfolio/GDP
<b>Whole sample: 103 countries</b>			
Mean	0.012	0.041	0.014
Median	0.008	0.033	0.009
<b>Emerging markets: 85 countries</b>			
Mean	0.012	0.046	0.012
Median	0.008	0.035	0.004
<b>OECD: 18 countries</b>			
Mean	0.008	0.020	0.021
Median	0.007	0.014	0.020
<b>Selected countries</b>			
Indonesia	0.007	0.017	0.009
Korea	0.002	0.037	0.014
Malaysia	0.023	0.034	0.023
Mexico	0.007	0.033	0.026
Philippines	0.009	0.026	0.017
Thailand	0.007	0.028	0.012

Notes:

1. Sources: Total inward FDI flows, total bank loans, and total inward portfolio investment from the IMF's *Balance of Payment Statistics*, various issues, GDP data are from the World Bank's *GDP & WDI Central Databases*.

2. Only countries that have at least eight non-missing observations during 1980-1996 for all variables and whose populations are greater than or equal to one million in 1995 are kept in sample.

3. OECD countries (with membership up to 1980) include: Australia, Austria, Canada, Denmark, Finland, France, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States. Emerging Markets refer to all countries not on the above list and with a GDP per capita in 1995 less than or equal to US\$15,000 (in U.S. \$).

**Table 8: Transformed Ratio of Loans to FDI**

Dependent variable: $\log(\text{Loan}+0.1) - \log(\text{FDI}+0.1)$ , averaged over 1994-96						
Methodology	Fixed Effects	Random Effects	Fixed Effects	Random Effects	IV	
	GCR/ WDR	T	GCR/ WDR	T	Fixed effects	GCR/ WDR
Corruption	0.675** (0.151)	0.674** (0.226)	0.701** (0.210)	0.681** (0.320)	0.382* (0.199)	0.374* (0.196)
Tax rate	0.011 (0.020)	0.013 (0.031)	0.012 (0.021)	0.012 (0.032)		
FDI incentives	0.040 (0.178)	0.072 (0.262)	-0.196 (0.187)	-0.166 (0.280)	-0.014 (0.171)	-0.023 (0.169)
FDI restrictions	0.546** (0.101)	0.550** (0.156)	0.558** (0.103)	0.547** (0.159)	0.427** (0.103)	0.425** (0.102)
Log (GDP)	-0.591** (0.128)	-0.645** (0.189)	-0.615** (0.131)	-0.657** (0.194)	-0.323** (0.128)	-0.309** (0.129)
Log (Per capita GDP)	0.227* (0.117)	0.239 (0.182)	0.314** (0.149)	0.318 (0.232)	0.114 (0.114)	0.113 (0.112)
Log distance	0.391** (0.112)	0.477** (0.133)	0.396** (0.115)	0.479** (0.135)	0.159 (0.147)	0.151 (0.146)
Linguistic tie	-0.490 (0.365)	-0.504 (0.356)	-0.513 (0.373)	-0.522# (0.360)	-0.752** (0.325)	-0.787** (0.326)
Exchange rate volatility	0.563 (2.368)	1.091 (3.490)	-0.279 (2.553)	0.442 (3.798)		-1.257 (2.451)
Over-identifying restriction (P-value of the test)					0.28	0.28
Adjusted R <sup>2</sup> /Over-all R <sup>2</sup>	0.48	0.51	0.45	0.50	-	-
No. of obs.	231	231	231	231	183	183

Note: see notes to Table 5.

**Figure 1: Relative Volatility of Different Capital Flows**

